AC&C Activity #1 (part c) Nearly Inert Tracers!

Goals:

test STE fluxes of O3, N2O, CFCs, …
test hemispheric and intra-hem mixing
(implied) test vertical turnover of troposphere

Urge all AC&C#1 CH4 and O3 models to participate.

Urge all AC&C#1 aerosol models to at least do SF6,
which will provide test of pollutant flow to Arctic

gas	observ. data	emission grid	total emissions	diagnostics
N2O				an 3D,
CFC-1				an 3D,
CFC-1	1980	fill/banks		an 3D,
SF6	NOAA surf sites, since 1995	industrial/elect.	scale to fit obs ("box inverse")	monthly mean 3D, daily surf?
O3	---	---	---	STE flux (lat x month?)
HFC-134a	**???**			

Ozone Hindcasts

- **Motivation**
  - Necessary to understand methane variability
  - To understand impact of large IA and decadal changes in
    - STE, Emissions, El Nino, AO/NAO, Climate
- **What needs to be done?**
  1. Define the forcings: stratosphere, emissions
  2. Define the observations: robust datasets of IA
  3. Define the time period: 1980, 1990 or 2000 – present
  4. Define the diagnostics

➢ About 13 models interested-also high interest in analyzing, interpreting results

Methane Hindcasts

- Interest is high
- Need more discussions with the inverse community
- Discussion postponed at this meeting
  - Simulations can only begin after the ozone hindcasts

- Further write-ups from these hindcast simulations will be posted
- We welcome your inputs, comments, suggestions……